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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,895	10/20/2004	David Burnet Sugden	4412-12	6377
23117 7590 01/14/2008 NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			EXAMINER SINGH, SUNIL	
			ART UNIT 3672	PAPER NUMBER
			MAIL DATE 01/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Interview Summary

Application No.

10/511,895

Applicant(s)

SUGDEN, DAVID BURNET

Examiner

Sunil Singh

Art Unit

3672

All participants (applicant, applicant's representative, PTO personnel):

(1) Sunil Singh.

(3) _____.

(2) Michelle N. Lester.

(4) _____.

Date of Interview: 1/10/07.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1.

Identification of prior art discussed: WO '486.

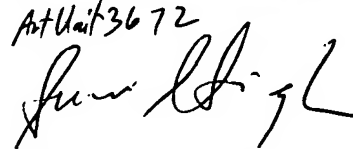
Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant submitted a proposed amendment (see attachment). However, the language "friction bearing disposed between the disc and the housing" raises new issues and would not be considered in any formal after final amendment submitted.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN A NON-EXTENDABLE PERIOD OF THE LONGER OF ONE MONTH OR THIRTY DAYS FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

SUNIL SINGH
PRIMARY PATENT EXAMINER

Art Unit 3672


Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

Nixon & Vanderhye PC

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FACSIMILE COVER SHEET
PLEASE DELIVER IMMEDIATELY!!!!

Our Ref.: 4412-12
Your Ref.: App No. Date: January 8, 2008
10/511,895

To: Examiner Singh
Firm: US Patent Office
Facsimile No.: 571-273-7051
From: Michelle N. Lester


Number of Pages (including cover sheet): 6
(IF YOU DO NOT RECEIVE ALL OF THE PAGES OR ENCOUNTER DIFFICULTIES IN TRANSMISSION,
PLEASE CONTACT US IMMEDIATELY AT (703-816-4000).

FACSIMILE OPERATOR

ATTACHMENT/S: |

MESSAGE: Attached is the proposed amendment to be discussed during the
telephone interview of January 10, 2008 at 1 PM.

Respectfully,


Michelle N. Lester

Reg. No. 32,331

CONFIDENTIALITY NOTE

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

SUGDEN

Atty. Ref.: 4412-12; Confirmation No. 6377

Appl. No. 10/511,895

TC/A.U. 3673

Filed: October 20, 2004

Examiner: Sunil Singh

For: OSCILLATING DISC CUTTER WITH SPEED CONTROLLING BEARINGS

* * * * *

DRAFT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT UNDER RULE 116

Responsive to the Official Action dated July 16, 2007, kindly enter the following amendment and remarks.

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January 8, 2008

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An oscillating disc cutter including:

a housing;

a cutting disc; and

a drive mechanism, the drive mechanism including:

a drive shaft mounted within said housing for rotation about a longitudinal shaft rotation axis, said shaft including a driven section and an offset mounting section, said mounting section including a mounting axis parallel to and spaced from said shaft rotation axis;

wherein said cutting disc is rotationally mounted to said mounting section about said mounting axis such that rotation of said shaft induces lateral-to-effect eccentric oscillation of the cutting disc; and

a radial bearing disposed between the mounting section of the drive shaft and the cutting disc to permit relative and generally free rotation of the cutting disc on the drive shaft; between the drive shaft and the cutting disc,

the cutter further including a first axial friction inducing bearing disposed between the disc and said housing to react transmit axial forces loads exerted on the disc to the housing while accommodating generally a free-induced rotation of the cutting disc with respect to said housing when operatively engaged and wherein said friction bearing induces to induce a rotational drag between said disc and said housing thereby limiting rotational speed of the cutting disc when free running to an angular velocity below that of the drive shaft.

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2. (Original) An oscillating disc cutter according to claim 1 further including a second bearing to induce a predetermined axial load in the first bearing.

3. (Original) An oscillating disc cutter according to claim 2 wherein the second bearing substantially reacts the axial forces induced by the first bearing.

4. (Previously Presented) An oscillating disc cutter according to claim 2 wherein the first bearing is of relatively higher friction, and the second bearing is of relatively lower friction.

5. (Previously Presented) An oscillating disc cutter according to claim 2 wherein the first bearing is a hydrostatic bearing.

6. (Previously Presented) An oscillating disc cutter according to claim 2 wherein the second bearing is a fluid lubricated bearing.

7. (Previously Presented) An oscillating disc cutter according to claim 5 wherein the hydrostatic bearing substantially reacts the axial cutting forces in the operative cutting mode.

8. (Original) An oscillating disc cutter according to claim 7 wherein the hydrostatic bearing is oil operated.

9. (Previously Presented) An oscillating disc cutter according to claim 8 wherein the second bearing is a pressurized fluid lubricated bearing.

10. (Previously Presented) An oscillating disc cutter according to claim 9 wherein pressure in the fluid lubricated bearing is maintained at a level such that a

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predetermined maximum running clearance in the hydrostatic bearing is maintained thereby inducing shear forces in the oil of the hydrostatic bearing.

11. (Previously Presented) An oscillating disc cutter according to claim 10 wherein the shear forces cause rotational drag in the bearing thereby limiting the rotational speed of the cutting disc when free running.

12. (Previously Presented) An oscillating disc cutter according to claim 9 wherein the fluid lubricated bearing is pressurized with water.

13. (Previously Presented) An oscillating disc cutter according to claim 12 wherein the fluid lubricated bearing is takes the form of a water-pressurized annulus.

14. (Previously Presented) An oscillating disc cutter according to claim 1 wherein the limited rotational speed of the cutting disc when free running is 0 to 1500 rpm.

15. (Previously Presented) An oscillating disc cutter according to claim 1 wherein the limited rotational speed of the cutting disc when free running is 0 to 750 rpm.

16. (Previously Presented) An oscillating disc cutter according to claim 1 wherein the limited rotational speed of the cutting disc when free running is 0 to 100 rpm.

17. (Previously Presented) An oscillating disc cutter according to claim 1 wherein the cutting disc is maintained at rotational speed that is lower than a speed of said drive shaft, even if there is no cutting load on the cutting disc.

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18. (Previously Presented) An oscillating disc cutter according to claim 1 wherein said rotational drag is predetermined in magnitude.

19. (Previously Presented) An oscillating disc cutter according to claim 18 wherein said rotational drag is controllable.

20. (Previously Presented) An oscillating disc cutter according to claim 1 wherein said rotational drag is controllable.